# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

# Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Paradise Cut	Left	1.45	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start		Rating **	Α	Issue No.	No. 14		
LM End		Issue Type +	Ma	Location * N/A			
Category	Earthen L	GPS La	atituc	le/Longitude			
Category				Start		End	
Item		Operations & Maintenance Manuals			0		0
пеш	Manuals				0		0
DWR ID	DWR_RD2	095_01_s _ 201	13_14				
		Action/	Comme	nts			
Inspector Comments: The O&M Manual is available at the office.							

No Photos

Rating \*\* Issue No. LM Start Α 17 Location \* N/A Issue Type + Ma LM End Earthen Levee GPS Latitude/Longitude Category Start End Flood Preparedness & Training Item DWR ID DWR RD2095 01 s 2013 17 Action/Comments

No Photos

Inspector Comments: The LMA has a current flood fight training and a flood fighting plan.

LM Start	Rating ** A			Issue No.		19	
LM End		Issue Type +	Ма	Location *	Location * N/A		
Category	Earthen L	GPS Latitude/Longitude					
Calegory				Start		End	
Emergency Supplies &				0		0	
Item	Equipment				0		0
DWR ID	DWR_RD2095_01_s _ 2013_19						
	Action/Comments						

No Photos

Inspector Comments: Flood fighting supplies available on-site at the warehouse.

A : Acceptable M : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

# Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Paradise Cut	Left	1.45	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	0.11	Rating **	A/W	Issue No.		134	
LM End	0.11	Issue Type +	Ma	Location *	* WS		
Catagory	Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End	
Item	Slope Stability			37.7702	12 °	37.770212 °	
пеш				-121.3256	75 °	-121.325675 °	
DWR ID	DWR ID DWR_RD2095_01_s _ 2014_134						
	Action/Comments						

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Photo 1 of 1: FA\_2014\_RD2095\_322\_134\_20141001\_00012.jpg



View of the vehicle access on the waterside levee slope.

LM Start	0.15	<b>0.15</b> Rating ** C		Issue No.		32
LM End	0.15	Issue Type +	Ma	Location *	WS	
Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End
Item	Slope Stability			37.7699	77 °	37.769977 °
item				-121.3250	12 °	-121.325012 °
DWR ID	DWR_RD2095_01_s _ 2012_32					
		Action/	Commo	ntc		

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: LMA is actively controlling the slope instability.

No Photos

LM Start	0.16	Rating **	Α	Issue No.	12	
LM End	0.16	Issue Type +	Ma	Location *	LS	
Category Earthen Levee				GPS Latitude/Longitude		
Calegory				Start		End
Item	Vegetation			37.76988	89 °	37.769889 °
item				-121.32479	93 °	-121.324793 °
DWR ID	DWR_RD2	4_12				
Action/Comments						

Control annual grass and weeds on the levee slopes and easements.

# Photo 1 of 1: FA\_2014\_RD2095\_322\_12\_20141110\_00017.jpg



View of acceptable vegetation maintenance.

Location + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence N/A: Not Applicable LS: Land Side : Acceptable N : Not Inspected/Rated WS : Water Side Minimally Acceptable C : Corrected CR : Crown U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

### Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Paradise Cut	Left	1.45	11/07/2014 11/07/2014	Maksim Khashchuk

		A/W	Issue No.		13			
0.42	Issue Type +	Ма	Location *		WS			
Category Earthen Levee				GPS Latitude/Longitude				
			Start		End			
Slope Stability			37.7669	17 °	37.766917 °			
			-121.3222	67 °	-121.322267 °			
DWR ID DWR_RD2095_01_s _ 2013_13								
	Earthen L	Earthen Levee	Earthen Levee Slope Stability	Earthen Levee GPS La Start Slope Stability 37.7669 -121.32220	Earthen Levee GPS Latitud Start Slope Stability 37.766917 ° -121.322267 °			

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: LMA is actively controlling the slope instability.



View of the repaired waterside levee slope.

LM Start	<b>0.73</b> Rating ** M		Issue No.		1		
LM End	0.74 Issue Type + Ma		Location *		WS		
Category				GPS Latitude/Longitude			
Category				Start		End	
Item	DWR Erosion Survey			37.76363	30°	37.763630	0
item				-121.31900	° 00	-121.319000	0
DWR ID							

### Action/Comments

Inspector Comments: 08/26/2014: No significant change observed.

08/28/2013: No significant change observed.

07/18/2012: No significant change observed.

09/02/2011: No significant change observed.

09/22/2010: No significant change observed. There is now considerable vegetation at the water line and along the lower berm slope. However, the erosion on the lower berm slope is still present and has not been corrected.

08/06/2010: Recommended for local maintenance issue, per CLRO. 07/29/2009: No major change since last visit; noticeable vegetation growth; erosion is on berm, but if left untreated, it will eventually erode into levee prism; site is recommended for annual assessment and monitoring of the site, per CLRO CES 2008 Report; Site # is the same as RM6.80,LM0.73; previously rated "U".

07/22/2008: Downstream of WPRR near siphon pipe & pump; sandy levee; visited by Jeff Van Gilder and LRO in 2008 for repair assessment; scouring downstream of RR crossing, possibly caused by eddy effects.

03/13/2007: Site visited on 03/13/2007. [2014 Site ID:RD2095U01RM6.74]

Photo 1 of 1: SJR2014 RD2095U01RM6.74 1.jpg



Direct view of the erosion upstream of Railroad bridge.

LS: Land Side N/A: Not Applicable

WS : Water Side

Friday, December 19, 2014 07:25

Acceptable

Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

### + Issue Type

Ma: Maintenance Deficiancy Ob : Design & System Obsolescence

En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

### Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Paradise Cut	Left	1.45	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	0.86	Rating **	С	Issue No.		2	
LM End	0.86	Issue Type +	Ma	Location *		WS	
Category				GPS Latitude/Longitude			
Calegory				Start End			
Item	. DWR Erosion Survey			37.76196	60°	37.761960	0
пеш				-121.31814	10°	-121.318140	0
DWR ID							

Action/Comments

Inspector Comments: 08/26/2014: The erosion was repaired.

08/28/2013: No significant change observed.

07/18/2012: No significant change observed.

09/02/2011: No significant change observed.

09/22/2010: No significant change observed. Sloughing of the existing rip rap possibly due to a combination of steep slope and undesirable flood conditions.

08/06/2010: Recommended as local maintenance issue, per CLRO. 07/29/2009: No major change observed since last visit; near-vertical slope that has rip rap sloughing; site is recommended as a local maintenance issue, per CLRO CES Evaluation 2008 Report; Site # is the same as RM6.90,LM0.86; previously rated "U".

07/22/2008: Previous erosion site that is partially protected with concrete rubble; erosion scarp is adjacent to the sloughing rip rap. 03/13/2007: Site visited on 03/13/2007. [2014 Site

ID:RD2095U01RM6.88]

No Photos

A : Acceptable M : Minimally A : Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W: Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

# **Reclamation District No. 2095 Paradise Cut**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	0.03	Rating **	A/W	Issue No.	9				
LM End	0.03	Issue Type +	Ma	Location *	WS				
Category	evee	GPS Latitude/Longitude							
Calegory				Start		End			
Item	Slope Sta	bility		37.7589	86 °	37.758986 °			
пеш				-121.3078	54 °	-121.307854 °			
DWR ID DWR_RD2095_02_s _ 2013_9									
		Action/Comments							

Repair the levee slope damaged by vehicle traffic and prevent access where possible.



View of the vehicle tire ruts on waterside levee slope.

LM Start	0.18	Rating **	С	Issue No.	10			
LM End	0.18	Issue Type +	Ма	Location *	WS			
Category	evee	GPS Latitude/Longitude						
Calegory				Start End				
Item	Slope Sta	bility		37.7573	22 °	37.757322		
item				-121.3062	91 °	-121.306291		
DWR ID	DWR ID DWR_RD2095_02_s _ 2013_10							
	Action/Comments							

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

No Photos

LM Start	0.62	Rating **	A/W	Issue No.	6		
LM End	0.62	Issue Type +	Ma	Location *	LS		
Category	.evee	GPS Latitude/Longitude					
Calegory	Category					End	
Item	Vegetatio	n		37.7516	68°	37.751668 °	
item				-121.30430	02 °	-121.304302 °	
DWR ID	DWR ID DWR_RD2095_02_s _ 2012_6						
Action/Comments							

Elderberries are blocking visibility and flood fight capability.





11/01/2011 Elderberry bush at landside toe.

\* Location
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating
A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence
U: Unacceptable A/W: Acceptable but Monitor & Maintain

\*\* Rating
A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy Ob: Design & System Obsolescence
D: Design & System Obsolescence
En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

# **Reclamation District No. 2095 Paradise Cut**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	0.98	Rating **	U	Issue No.	ue No. <b>941</b>		
LM End	0.98	Issue Type +	Ma	Location *	WS		
Category	evee	GPS Latitude/Longitude					
Calegory	alegory					End	
Item	Vegetatio	n		37.7497	06 °	37.749706 °	
пеш				-121.2992	37 °	-121.299237 °	
DWR ID	R ID DWR_RD2095_02_s _ 2012_941						
	Action/Comments						

Elderberries are blocking visibility and flood fight capability. Inspector Comments: Dense bush within 20' of crown on waterside slope.

hoto 1	of 1 : FA_	2014_RD	2095_323	_941_	20141001	_00013.j	pg
						A1	

Elderberry blocks visibility of levee slope.

LM Start	1.00	Rating **	A/W	Issue No.		940	
LM End	1.00	Issue Type +	Ma	Location *	WS		
Catagory	evee	GPS Latitude/Longitude					
Category				Start		End	
Item	Vegetatio	n		37.7496	29 °	37.749629 °	
item				-121.2990	40 °	-121.299040 °	
DWR ID DWR_RD2095_02_s _ 2012_940							
		Action/	Comme	nts			

Elderberries are blocking visibility and flood fight capability.

No Photos

LM Start	1.10	Rating **	N	Issue No.	3			
LM End	1.10	Issue Type +	Ма	Location *	LS			
Category	GPS Latitude/Longitude							
Category	egory					End		
ltom	Trim / Thi	n Trees		37.74818	34 °	37.748184	0	
пеш	Item				95 °	-121.298995	0	
DWR ID DWR_RD2095_02_s _ 2012_3								
	Action/Comments							

Tree stumps.

Inspector Comments: 4 stumps



View of the tree stumps on the landside levee slope..

\* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

\*\* Rating

A: Acceptable N: Not Inspected/Rated M: Maintenance Deficiancy

M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

# **Reclamation District No. 2095 Paradise Cut**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	1.31	Rating **	N	Issue No.	8			
LM End	1.31	Issue Type +	Ma	Location *	LS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory	gory			Start		End		
Item	Trim / Thin Trees			37.745343 °		37.745343 °		
пеш				-121.29762	20 °	-121.297620 °		
DWR ID	DWR ID DWR_RD2095_02_f _ 2012_8							
Action/Comments								
Tree stum	Tree stumps.							

ree stumps.

Inspector Comments: Two tree stumps.

No Photos

LM Start	1.35	Rating **	A/W	Issue No.	195			
LM End	1.35	Issue Type +	Ма	Location *		WS		
Catagonia Earthen Levee				GPS Latitude/Longitude				
Calegory	Category					End		
Item	Erosion /	Bank Caving		37.7447	46 °	37.744746 °		
item				-121.2976	95 °	-121.297695 °		
DWR ID	DWR_RD2095_02_s _ 2014_195							
Action/Comments								

Note and monitor erosion site.

# Photo 1 of 1 : FA\_2014\_RD2095\_323\_195\_20141001\_00011.jpg

View of the erosion on the waterside levee slope possibly eroding into the levee prism.

LM Start	1.54	Rating **	A/W	Issue No.		12	
LM End	1.54	Issue Type +	Ма	Location *		WS	
Category	Earthen L	GPS Latitude/Longitude					
Category		Start		End			
Item	Vegetation			37.7428	28 °	37.742828	o
пеш		-121.2975	32 °	-121.297532	c		
DWR ID	DWR_RD2095_02_s _ 2012_12						
Action/Comments							

Elderberries are blocking visibility and flood fight capability.

No Photos

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

### Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	<b>1.77</b> Rating ** M		Issue No.		1			
LM End	1.80	Issue Type +	Ma	Location *		WS		
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR Erosion Survey			37.74019	3°	37.740196	0	
пеш				-121.29766	2 °	-121.297662	0	
DWR ID								

### Action/Comments

Inspector Comments: 7/02/2014: No significant change observed. 08/28/2013: No significant change observed.

09/13/2012: The site has been visited by land survey. The vegetation on the site shows the erosion has not developed significantly from the last survey.

The site was not visited by boat survey due to the limitation of navigable waterway.

08/23/2011: No significant change observed.

9/22/2010: No significant change observed. There is moderate vegetation growth on the berm. Despite the erosion occurring on the berm, corrective action should be taken before the issue becomes severe.

9/29/2009: Site is immediately downstream of a section of existing rip rap; there is a 20-foot berm remaining; berm will continue to erode unless erosion is mitigated; Site# is the same as RM62.6, LM1.87: recommended for annual assessment, per CES Evaluation 2008 Report 2006: Visited 10/20/06 [2014 Site ID:RD2095U02RM60.62]



View of the erosion.

Location LS: Land Side N/A: Not Applicable WS : Water Side

Acceptable Minimally Acceptable U : Unacceptable

N : Not Inspected/Rated C : Corrected

+ Issue Type Ma : Maintenance Deficiancy Ob : Design & System Obsolescence

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

### Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	1.85	Rating **	М	Issue No.		2	
LM End	1.89	Issue Type +	Ma	Location *		WS	
Catagony	Supplemental			GPS Latitude/Long			
Category				Start		End	
Item	DWR Erosion Survey			37.73888	30 °	37.738880 °	
item				-121.29826	60°	-121.298260 °	
DWR ID							

### Action/Comments

Inspector Comments: 7/02/2014: No significant change observed. 08/28/2013: No significant change observed. Dense vegetation blocks the visual inspection at the site.

09/13/2012: The site has been visited by land survey. The erosion is not visible from the levee slope because of dense vegetation at the site. Levee slope is protected by placed rocks. The site was not visited by boat survey due to the limitation of navigable waterway.

08/23/2011: Dense vegetation makes it difficult to view the possible erosion. No new development was observed on site.

09/23/2010: At the time of the inspection, the erosion site was difficult to view from the levee. The erosion is located on the bank toe, below the existing rip rap. There were no signs of repair on site, nor has the site been reported to be repaired by the district. Images taken from last year indicate that existing rip rap at the bank toe has sloughed exposing the underlying soils. Weakening of the toe could lead to future bank instability.

08/05/2010: Recommended for annual assessment and monitoring during flood events, per CLRO.

09/29/2009: No major change observed since last visit; sloughing of the rip rap above toe; erosion begins immediately downstream of existing rip rap revetment; roughly 15-foot berm remains; however, it will continue to erode and eventually intrude into the levee profile if left untreated

10/20/2006: Just upstream of where berm starts to widen. [2014 Site ID:RD2095U02RM60.69]





View of the erosion from the survey boat. The dense vegetation on the site blocks the view of the erosion.

LM Start	2.14	Rating **	М	Issue No.	20		
LM End	2.14	Issue Type +	Ma	Location *	WS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory			Start		End		
Item	Vegetation			37.73485	8 °	37.734858 °	
пеш	item		-121.29775	8 °	-121.297758 °		
DWR ID	DWR_RD2095_02_s _ 2012_20						
	Action/Comments						

Elderberries are blocking visibility and flood fight capability.



Vegetation on waterside slope obstructs access and visibility.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

# Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2014

# Reclamation District No. 2095 Paradise Cut

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River	Left	3.41	11/07/2014 11/07/2014	Maksim Khashchuk

LM Start	2.88	Rating **	С	Issue No.		15	
LM End	2.88	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory		Start		End			
Item	Erosion /	Erosion / Bank Caving			3°	37.724633	0
пеш				-121.29973	2 °	-121.299732	0
DWR ID	DWR_RD2095_02_s _ 2014_15						
Action/Comments							

Schedule repair of erosion site prior to the next inspection.

No Photos

Rating \*\* Issue No. LM Start 2.89 С 19 Issue Type + Ma Location \* LS LM End 2.89 Earthen Levee GPS Latitude/Longitude Category Start End Erosion / Bank Caving 37.724435° 37.724435 ° Item -121.299868 ° -121.299868 DWR RD2095 02 s 2014 19 DWR ID Action/Comments

No Photos

Rating \*\* Issue No. LM Start 2.91 С 196 2.91 Issue Type + Ма Location \* LS LM End Earthen Levee GPS Latitude/Longitude Category Start End Erosion / Bank Caving 37.724246 ° 37.724246 ° Item

DWR ID DWR\_RD2095\_02\_s \_ 2014\_196

Action/Comments

Schedule repair of erosion site prior to the next inspection.

Schedule repair of erosion site prior to the next inspection.

No Photos

\* Location LS : Land Side WS : Water Side

N/A: Not Applicable

: Acceptable : Minimally Acceptable U : Unacceptable

-121.299997

-121.299997

N : Not Inspected/Rated C : Corrected A/W: Acceptable but Monitor & Maintain + Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En: Enforcement